

Linking BOEM and BSEE Studies to the 1999 IDWG Action Plan

Technical, environmental and deposition issues were identified within the 1999 IDWG Action Plan for Addressing Pacific Region Offshore Oil and Gas Facility Decommissioning.

Many studies have been completed by BOEM and BSEE in order to answer these issues and many other studies are in the process to continue answering the questions in the Action Plan.

Appendix II of the Action Plan divided the identified issues into specific areas. This handout provides questions asked and the corresponding studies to answer those questions.



Technical Issues

Deepwater Removal Technology

The Questions Proposed in:

Deepwater Removal Technology:

What type of Technology is likely to be used to decommission deepwater oil and gas structures located offshore California?

Is it technically and economically feasible to completely remove large deepwater (+400 foot water depth) oil and gas structures?

Decommissioning Costs:

For various removal (partial versus complete) and disposal options (reefing, scrapping, deepwater disposal), how much will it cost (general order of magnitude) to decommission shallow, moderate, and ultra-deepwater platform structures in the Pacific Region?

Reuse Options:

What are the prospects for converting offshore platforms to other uses (academic research/military facility) in the Pacific Region?*

Safety Considerations:

What are the primary human risk/safety considerations associated with decommissioning operations? Have these risks been quantified?

Studies:

State of the Art Removing Large Platforms Located in Deep Water, Completed (2000)

Comparative Health and Safety Risk Assessment of Decommissioning Large Offshore Platforms; Final Report, Case Studies for Decommissioning of Three Offshore Platforms in the Pacific OCS, Completed (2003)

Explosive Removal of Offshore Structures: Information Synthesis Report, Completed (2004)

Decommissioning Cost Update for Pacific OCS Region Facilities, Completed (2014, with revisions in October 2016)

** See 30 CFR 585.1000+ (subpart J) for alternate use regulations.*

Decommissioning Costs

Reuse Options

Safety Considerations

Environmental Issues

Air Emission Requirements Questions:

What are the emission sources from decommissioning operations and how can the impacts be mitigated?

Does disposal of decommissioning materials pose any air quality concerns or require additional permits?

How can air emissions resulting from decommissioning operations be mitigated?

Study: *Air Emissions Associated with Decommissioning Operations for Pacific Outer Continental Shelf (OCS) Oil and Gas Platforms, Planned to start 2018*

**NEPA/CEQ
A Process**

Should agencies jointly prepare a programmatic EIS/EIR for decommissioning offshore oil and facilities in the Pacific Region?

No studies have been completed, see PEIS pros/cons table for more information

Scientific Research Questions:

- What information do we have concerning the magnitude of fish kills resulting from the explosive severing of platform legs in the Pacific Region? Are additional studies needed?
- Is the research being conducted in the Gulf of Mexico on fish kills applicable to the Pacific Region?
- Should additional research be funded to study the effectiveness and rate of recovery for marine benthic organisms impacted by decommissioning operations?
- What information do we have on water quality impacts associated with platform decommissioning operations? Are additional studies needed?

Studies:

- *Reproductive Ecology and Body Burden of Resident Fish Prior to Decommissioning, 2009*
- *Effect of Offshore Oil Platform Structures on the Distribution Patterns of Commercially Important Benthic Crustaceans, with Emphasis on the Rock Crab, 1999*
- *GIS Database Characterizing the Harbortom Habitats Near OCS Structures in the Pacific Region, 2004*
- *Disturbance Index Development for the Pacific OCS, to be completed January 2019*
- *Role of Food Subsidies and Habitat Structure in Influencing Benthic Communities of Shell Mounds at Sites of Existing and Former Offshore Oil Platforms, 2005*
- *Physical and Chemical Characteristics of the Platform Gina Shell Mound, 2007*
- *Megabenthic Invertebrates on Shell Mounds Under Oil and Gas Platforms off California, 2008*
- *Determining the Potential Release of Contaminants into the Marine Environment from Pacific OCS Shell Mounds, 2014*

Disposition Issues

Scientific Research

Questions

- Should Studies be funded to determine what happens to fish living at platforms that are removed?
- Should additional research be funded to collect more information on the comparative performance of organisms on platforms and natural reefs?
- Has sufficient information been compiled to determine whether artificial reefs are fish attractors or producers?

Studies

- *Net Environmental Benefit Analysis of Pacific Platform Decommissioning Scenarios, To be completed September 2019*
- *The Ecological Role of Oil and Gas Production Platforms and Natural Outcrops on Fishes in Southern and Central California: A Synthesis of Information, 2003*
- *Ecological Performance of OCS Platforms as Fish Habitat off California, 2005*
- *Relative Contribution of POCS Oil Platforms to Regional Population Dynamics of a Model Reef Fish, The Blackeye Goby *Rhinogobiops nicholsii*, in Eastern Santa Barbara Channel, 2006*
- *Site Fidelity of Characteristic Fish Species at Offshore Oil Platforms in the Santa Barbara Channel, 2007*
- *Assessing the Fate of Juvenile Rockfish at Offshore Platforms and Natural Reefs in the Santa Barbara Channel, 2008*
- *Translocation, Homing Behavior and Habitat Utilization of Groundfishes around Offshore Oil Platforms in the East Santa Barbara Channel, 2009*
- *Spatial and Seasonal Variation in the Biomass and Size Distribution of Juvenile Fishes Associated with a Petroleum Platform off the California Coast, 2011*
- *Biological Productivity of Fish Associated with Offshore Oil and Gas Structure on the Pacific OCS, 2014*
- *Regional Importance of OCS Oil and Gas Platforms as Rockfish Nurseries, To be completed 2018*

To access the identified studies in this handout and others completed through BOEM and BSEE, please see: [[HYPERLINK](https://www.boem.gov/Selected-BOEM-BSEE-Funded-) "https://www.boem.gov/Selected-BOEM-BSEE-Funded-

